



Marked-up Version of Amended Claims

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Additions to the claims are indicated by underlining; deletions are indicated by square brackets.

--208. (Three Times Amended) A process for determining whether a chemical compound is an agonist of a mammalian GABA_BR1/R2 receptor which comprises contacting cells containing nucleic acid encoding, and expressing on their cell surface, the GABA_BR1/R2 receptor, wherein such cells prior to being transfected with such nucleic acid do not express the GABA_BR1/R2 receptor, with the compound under conditions permitting the activation of the GABA_BR1/R2 receptor, and detecting an increase in activity of the GABA_BR1/R2 receptor, [so as to thereby determine whether] wherein said increase in activity indicates that the compound is an agonist of a GABA_BR1/R2 receptor, and wherein the mammalian GABA_BR1/R2 receptor comprises a GABA_BR1 polypeptide and a GABA_BR2 polypeptide, which GABA_BR1 polypeptide has an amino acid sequence identical to the amino acid sequence shown in Figures 24A-24D (SEQ ID NO: 48) or Figures 25A-25D (SEQ ID NO: 49), and which GABA_BR2 polypeptide has an amino acid sequence (a) identical to the amino acid sequence shown in Figures 4A-4D (SEQ ID NO: 4) or Figures 23A-23D (SEQ ID NO: 47), or (b) encoded by a nucleic acid sequence identical to the receptor-encoding nucleic acid sequence contained in plasmid pEXJT3T7-hGABAB2 (ATCC Accession No. 203515) or in plasmid BO-55 (ATCC Accession No. 209104).--

Exhibit A

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- 210. (Amended) [A] The process of claim 208 [or 209], wherein the cells additionally express nucleic acid encoding GIRK1 and GIRK4.--
- 221. (Amended) The process of [any one of claims] claim 213[-216] or 214, wherein the cell is an insect cell or a mammalian cell.--
- 224. (Three Times Amended) A method of screening a plurality of chemical compounds [not known to activate a mammalian GABA_BR1/R2 receptor to identify a compound] to determine whether any compound within such plurality of compounds [which] activates [the] a mammalian GABA_BR1/R2 receptor, wherein the mammalian GABA_BR1/R2 receptor comprises a GABA_BR1 polypeptide and a GABA_BR2 polypeptide, which GABA_BR1 polypeptide has an amino acid sequence identical to the amino acid sequence shown in Figures 24A-24D (SEQ ID NO: 48) or Figures 25A-25D (SEQ ID NO: 49), and which GABA_BR2 polypeptide has an amino acid sequence (a) identical to the amino acid sequence shown in Figures 4A-4D (SEQ ID NO: 4) or Figures 23A-23D (SEQ ID NO: 47), or (b) encoded by a nucleic acid sequence identical to the receptor-encoding nucleic acid sequence contained in plasmid pEXJT3T7-hGABAB2 (ATCC Accession No. 203515) or in plasmid BO-55 (ATCC Accession No. 209104) which comprises:
- (a) contacting cells containing nucleic acid encoding, and expressing on their cell surface, the GABA_BR1/R2 receptor, wherein such cells prior to being transfected with such nucleic acid do

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not express the GABA_BR1/R2 receptor, with the plurality of compounds [not known to activate the GABA_BR1/R2 receptor,] under conditions permitting activation of the GABA_BR1/R2 receptor;

(b) determining whether the activity of the GABA_BR1/R2 receptor is increased in the presence of the compounds, and if it is increased;

(c) separately determining whether the activation of the GABA_BR1/R2 receptor is increased by each compound included in the plurality of compounds, so as to thereby [identify the] determine whether any compound or compounds present in such [a] plurality of compounds [which] activates the GABA_BR1/R2 receptor.--

--225. (Amended) The [process] method of claim 224, wherein the cells express nucleic acid encoding GIRK1 and GIRK4.--

--228. (Amended) [A] The method of [any one of claims] claim 224[, or 225, [226 or 227] wherein the cell is a mammalian cell.--

--229. (Amended) [A] The method of claim 228, wherein the mammalian cell is non-neuronal in origin.--

--233. (Amended) The process of claims 231 [or 232], wherein the GABA_BR1/R2 receptor comprises a GABA_BR2 polypeptide which has the same amino acid sequence as that encoded by the plasmid BO-55 (ATCC Accession No. 209104).--

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- 234. (Amended) The process of claim 231 [or 232], wherein the GABA_BR1/R2 receptor comprises a GABA_BR2 polypeptide which has the same amino acid sequence as that shown in Figures 4A-4D [(Seq. ID No. 4)] (SEQ ID NO: 4).--
- 235. (Amended) The process of claim 231 [or 232], wherein the GABA_BR1/R2 receptor comprises a GABA_BR2 polypeptide which has the same amino acid sequence as that encoded by the plasmid pEXJT3T7-hGABAB2 (ATCC Accession No. 203515).--
- 236. (Amended) The process of claim 231 [or 232], wherein the GABA_BR1/R2 receptor comprises a GABA_BR2 polypeptide which has the same amino acid sequence as that shown in Figures 23A-23D (SEQ ID NO: 47) [(Seq. ID No. 47)].--
- 237. (Amended) The process of claim 231 [or 232], wherein the cell is an insect cell or a mammalian cell.--

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